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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------|------------------|
| 09/757,994 | 01/10/2001 | Pil-Jae Cho | 5000-1-143 | 8508 |
| 33942 | 7590 | 10/27/2003 | | |
| CHA & REITER, LLC 210 ROUTE 4 EAST PARAMUS, NJ 07652 | | | | |
| | | | EXAMINER NGUYEN, SIMON | |
| | | | ART UNIT 2685 | PAPER NUMBER |

DATE MAILED: 10/27/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,994

Applicant(s)

CHO, PIL-JAE

Examiner

SIMON D NGUYEN

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 9-16, 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. (6,411,826) in view of Rudisill et al. (6,272,324).

Regarding claim 1, Camp, Jr. discloses a flip type terminal (figs.2A, 3A, 4A), comprising:

A body including a position sensing receiver mounted in the main body (fig.1); a flip adapted for attachment to the body (fig. 4A); a slim-style micro-strip antenna (39C) which is mounted to the flip (column 6 lines 28-41); a hinge means (not shown) for mechanically connecting the body and the flip so that the flip is pivotable from: an open position wherein the flip projects out from the body at a predetermined angle relative to the body which permits optimal position sensing communication by the micro-strip antenna; and a closed position wherein the flip is substantially parallel to the body so that the micro-strip antenna is shielded between the flip and the body; and an RF circuit for electrically connecting the position sensing receiver and the micro-strip antenna so that the circuit flexes as the flip is moved between the closed position and the open

position (fig.4A, column 4 lines 39-49). However, camp, Jr. does not specifically discloses a hinge and a printed circuit.

Rudisill discloses a hinge for connecting a body and a flip so that the lip is pivotable (#82 of fig.1) and a printed circuit (column 5 line 54 to column 6 lines 49). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Camp, Jr., modified by Rudisill to provide the flexible operation of the contacts when the flip is closed or opened.

Regarding claim 15, this claim is rejected for the same reason as set forth in claim 1.

Regarding claims 2 and 16, Camp, Jr. further discloses a GPS receiver (fig.1).

Regarding claims 9-11, in the Camp, Jr., Camp, Jr. further discloses the patch antenna connected with the GPS receiver (fig.1), and the flip connected with the body at a lower end of the body (fig.4A).

Regarding claims 12-14, and 18-20, in the Camp, Jr., Camp, Jr. further discloses a second antenna (#23 of fig.1) arrange at an uppermost of the body for wireless communications and the path antenna (39 of fig.1) and the second antenna are adapted to respectively transmit and different from each other (fig.1) and wherein Rudisill disclose the open position is depended on the objectives of the designer for the movable contact on the hinged over (column 6 lines 50-67) which means for an ideal position the flip and the body should be about 130-150 degrees as claimed. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to

have Camp, Jr., modified by Rudisill to design an ideal angle in order to provide the best signal reception.

3. Claims 3-8, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. (6,411,826) in view of Rudisill et al. (6,272,324) as applied to claim 1, and further in view of Nakada et al. (6,243,592).

Regarding claims 3-8, 17, in the modified Camp, Jr., Rudisill discloses first and the second antennas in the flip (figs.2, 4), and a printed circuit (column 5 line 67, fig.4). It should be noted that the first antenna of Rudisill can be formed in an upper part of the flip and the second antenna can be formed in a lower part of the flip, which is a choice since the applicant does not specifically claim why to install in such cases. However, the modified Camp, Jr. fails to disclose a double-sided tape.

Nakada discloses a portable radio in which a double-sided tape is used for bonding antenna with a housing (column 3 lines 57-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have the modified Camp, Jr., modified by Nakada to use a double-sided tape to attaché the upper and lower part of the flip in order to assure the absolute distance against a high voltage between the shield cases.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Epperson et al. (5,752,204) disclose a flip telephone,

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wherein the flip having a patch antenna (78) (fig.3, 6) for receiving the satellite information (GPS signal) and a body having a communication antenna (64) (fig.6); the Shirakawa reference discloses a flip telephone having two antenna, one is a patch antenna for GPS and other for communication signal (figs.1, 5).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (703) 308-1116. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (703) 305-4385.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314, (for formal communications intended for entry)

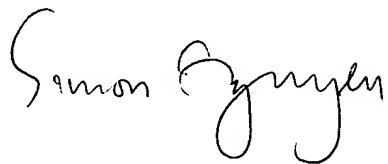
Hand-delivered response should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Simon Nguyen

October 9, 2003

A handwritten signature in cursive script that reads "Simon Nguyen". The signature is written in black ink and is positioned below the typed name and date.